UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,285	10/31/2003	Toshiaki Nakahira	244611US2	8446

22850 7590 02/26/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
BEMBEN, RICHARD M	

ART UNIT	PAPER NUMBER
2622	

NOTIFICATION DATE	DELIVERY MODE
02/26/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/697,285	NAKAHIRA, TOSHIAKI	
	Examiner	Art Unit	
	RICHARD M. BEMBEN	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2003*.

2a)☒ This action is FINAL. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5,7-14,17-29,32 and 34-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,2,5,7-12,17-21,28,29,32 and 34-38* is/are allowed.

6)☒ Claim(s) *22-27* is/are rejected.

7)☒ Claim(s) *13 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 13 and 14 are objected to because of the following informalities: they depend on cancelled claim 4. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,700,607 issued to Misawa.

Regarding claim 22, Misawa discloses a digital camera (refer to Figures 5 and 6), comprising:

an imaging device (c. 4, ll. 1-47; Figure 1, CCD 10; however the imaging device can also be MOS type or CID, see c. 5, ll. 41-45) driven by a plurality of kinds of drive

modes (c. 4, l. 48 - c. 5, l. 40, Figures 2A-4B), the plurality of kinds of drive modes including a draft mode (c. 7, l. 55 – c. 8, l. 17, the mode in which the imaging device is driven by reading the signals from 1/4 or 1/8 is considered "draft mode") and a first frame mode (c. 8, ll. 28-44, the mode in which the imaging device is driven by reading the signals from ½ is considered "first frame mode");

an image display device having a number of pixels less than a number of pixels of the imaging device (c. 8, ll. 53-60, LCD 40); and

means for enlarging a part of an area of a whole image obtained by the imaging device at a desired enlargement ratio and for displaying the part of the area being enlarged as an enlarged image on the image display device (c. 8, l. 45 - c. 9, l. 14; Figures 7-9),

wherein one of the at least two kinds of drive modes for driving the imaging device is changed to the first frame mode such that a resolution of the the enlarged image is equal to or greater than a resolution of the image display device (c. 8, l. 28 - c. 9, l. 14; Figures 7-9),

the first frame mode including dividing the overall pixels of the imaging device into a plurality of fields (refer to c. 4, l. 47 - c. 5, l. 7 and Figures 2A-B), and reading at least one of the plurality of fields of the imaging device to obtain image data, the enlarged image being taken in from at least a portion of the image data (c. 8, l. 28 – c. 9, l. 14), and

wherein when a second enlargement instruction is input to the means for enlarging, the drive mode is changed to the first frame mode (refer to c. 8, ll. 29-32 and

c. 8, l. 45 – c. 9, l. 4; when enlarging is instructed, the camera uses the ½ read mode, defined above as the first frame mode... this happens upon the first instruction of enlargement as well as upon subsequent enlargement instructions).

Note that dependant claim 11 was indicated as allowable (in Final Office Action dated 3 September 2008) if rewritten in independent form including all of the limitations of the base claim (claim 1) and any intervening claims (i.e. claim 10). Claim 22 is not automatically made allowable by appending the limitations of claim 11 alone.

Regarding claim 23, Misawa discloses the digital camera according to claim 22 and further discloses: means for designating a desired position in an image displayed on the image display device, wherein the image displayed on the image display device is enlarged around the position designated by the means for designating (c. 8, ll. 45-52, "central part enlargement button" designates a desired position in an image displayed to be enlarged).

5. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa in view of US Patent No. 6,130,420 issued to Tanaka et al., hereinafter "Tanaka".

Regarding claim 24, the limitations of claims 22 are taught above by the Misawa reference. Misawa further discloses a timing generator configured to generate clock signals to drive the imaging device (refer to c. 4, ll. 1-45, specifically the discussion of pulses supplied from a "CCD drive circuit"). It is also inherent that there is a system

clock which generates signals that drive the image sensing device disclosed by Misawa. However, Misawa discloses that when read out mode is changed between a "draft" mode and "first frame mode" the refresh rate changes, i.e. is lower when in "first frame mode" (c. 9, l. 66 - c. 10, l. 2). Therefore, one would infer that the driving frequency is maintained between the modes.

Tanaka discloses an imaging device (c. 3, l. 59, CCD) having at least two read modes: a first mode and a second mode which reads out fewer pixels than the first mode (c. 4, ll. 51-58). Tanaka further discloses a timing generator configured to generate clock signals to drive the imaging device and a clock generator configured to change clock signals input to a timing generator from one frequency to another frequency (c. 4, l. 42 - c. c. 5, l. 2). Tanaka allows changes in frequency depending on the readout mode. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to change from one frequency to another frequency as disclosed by Tanaka in the camera system disclosed by Misawa in order to reduce power consumption when it is acceptable to drive the imaging device at a lower frequency. Note that reducing the consumption of electricity is intended by Misawa (c. 8, ll. 11-12).

Regarding claim 25, refer to the rejection of claim 24 above and Tanaka further discloses that when the drive mode is changed from a first read mode to a second read mode (again, a first mode and a second mode which reads out fewer pixels than the first mode... this is analogous to Misawa's read modes discussed above in the rejection

of claim 1), a refresh rate of an image output from one frame of the imaging device is prevented from changing by changing a clock frequency output from the clock generator (refer to Figures 1, 6A, 6B, 8A, and 8B; c. 4, ll. 43-58; c. 6, ll. 4-61; c. 8, l. 4 – c. 9, l. 15).

Regarding claim 26, refer to the rejection of claim 25 above and Tanaka further discloses that the camera comprises a switch (selector 24) configured to switch a setting if the clock frequency output from the clock generator is changed or not when the selected drive mode (e.g. from all-pixel read-out mode to thinned read-out mode) is changed (to a mode such as the first frame mode). Please refer to Figure 1 and c. 6, ll. 4-61.

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Misawa in view of Tanaka in further view of U.S. Patent No. 6,700,610 issued to Kijima et al., hereinafter "Kijima".

Regarding claim 27, the limitations of claim 26 are taught above by Misawa in view of Tanaka, but the combination fails to teach that the camera comprises a power supply capacity checking device to check and detect a capacity of a power supply, wherein when the power supply capacity checking device detects that the capacity of the power supply is less than a predetermined value, the clock frequency output from the clock generator is not increased regardless of whether the switch switches the setting or not.

However, noting the Kijima reference, Kijima teaches a digital camera having a power supply capacity checking device (battery checker 27) configured to check and detect a capacity of a power supply (e.g. a battery), wherein when the power supply capacity checking device detects that the capacity of the power supply is less than a predetermined value, the clock frequency output from the clock generator (i.e. output frequency from the signal generator 17) is not increased (i.e. from frequency fl to frequency f2) regardless of whether the switch switches the setting or not. Please refer to Fig. 8 and Col. 11, Line 47 - Col. 12, Line 9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the power supply capacity checking device of Kijima with the digital camera of Misawa in view of Tanaka. One would have been motivated to do so because, as Kijima teaches in Col. 4, Lines 50-62, increasing the clock frequency output from a clock generator greatly increases the power consumption from the power supply, possibly resulting in stoppage of the system operation if the power supply reaches a low level. Thus, by checking the power supply capacity before increasing clock frequency, the user can be assured that the operation of the system will not cease solely due to a change in clock frequency.

Allowable Subject Matter

7. Claims 1, 2, 5, 7-12, 17-21, 28, 29, 32 and 34-38 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter: Regarding independent claims 1 and 28, the Examiner could not find prior art

teaching or suggesting the required limitations, especially the limitation "wherein when the clock frequency output from the clock generator is changed, an exposure amount is prevented from changing by keeping a pulse interval between electronic shutter pulses output to the imaging device".

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD M. BEMBEN whose telephone number is (571)272-7634. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David L. Ometz/
Supervisory Patent Examiner, Art Unit 2622

RMB